

PANK2 Antibody (Center)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7160b

Specification

PANK2 Antibody (Center) - Product Information

Application	WB,E
Primary Accession	Q9BZ23
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	62681
Antigen Region	180-210

PANK2 Antibody (Center) - Additional Information

Gene ID 80025

Other Names

Pantothenate kinase 2, mitochondrial, hPanK2, Pantothenic acid kinase 2, PANK2, C20orf48

Target/Specificity

This PANK2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 180-210 amino acids from the Central region of human PANK2.

Dilution

WB~~1:1000

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

PANK2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

PANK2 Antibody (Center) - Protein Information

Name PANK2

Synonyms C20orf48

Function [Isoform 1]: Mitochondrial isoform that catalyzes the phosphorylation of pantothenate to

generate 4'-phosphopantothenate in the first and rate-determining step of coenzyme A (CoA) synthesis (PubMed:[15659606](#), PubMed:[17825826](#), PubMed:[17242360](#), PubMed:[16272150](#)). Required for angiogenic activity of umbilical vein of endothelial cells (HUVEC) (PubMed:[30221726](#)).

Cellular Location

[Isoform 1]: Mitochondrion. Mitochondrion intermembrane space. Nucleus Note=Localizes predominantly to the mitochondria and to a lesser extent to the nucleus. Found in both the mitochondria and the nucleus throughout the cell cycle, with the exception of the G2/M phase when it is restricted to mitochondria. [Isoform 3]: Cytoplasm {ECO:0000269|PubMed:12554685, ECO:0000305}

Tissue Location

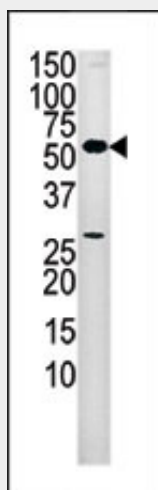
Expressed in the brain (at protein level) (PubMed:15659606, PubMed:17825826). Ubiquitous (PubMed:11479594) Highly expressed in the testis (PubMed:17825826). Expressed in the umbilical vein endothelial cells (HUVEC) (PubMed:30221726)

PANK2 Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

PANK2 Antibody (Center) - Images



Western blot analysis of anti-PANK2 Pab (Cat. #AP7160b) in mouse liver tissue lysate (35ug/lane). PANK2 (arrow) was detected using the purified Pab.

PANK2 Antibody (Center) - Background

Pantothenate kinase is an essential regulatory enzyme in CoA biosynthesis, catalyzing the cytosolic phosphorylation of pantothenate (vitamin B5), N-pantothenoylcysteine, and pantetheine. CoA is the major acyl carrier, playing a central role in intermediary and fatty acid metabolism. In both yeast

and fly, each with only 1 pantothenate kinase gene, the null mutant is inviable. Mutations in PANK2 are the cause of pantothenate kinase-associated neurodegeneration (PKAN), formerly known as Hallervorden-Spatz syndrome (HSS). PKAN is an autosomal recessive neurodegenerative disorder associated with iron accumulation in the brain. Mutations in PANK2 are the cause of hypoprebetalipoproteinemia, acanthocytosis, retinitis pigmentosa, and pallidal degeneration (HARP).

PANK2 Antibody (Center) - References

Neurology 58: 1673-1674, 2002.
Hum. Molec. Genet. 12: 321-327, 2003.
Neurology 61: 1423-1426, 2003.
Neurology 64: 1810-1812, 2005.
Nature Genet. 28: 345-349, 2001.